

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	17792	(TMA or trimethylaluminum or tri-methylaluminum or (tri adj methyl adj aluminum) or (tri adj methylaluminum))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 07:28
L2	3294	L1 and (ozone "o.sub.3")	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 07:28
L3	975	L2 and ((aluminum adj oxide) or ("al.sub.2O.sub.3") or ("al.sub.2.O.sub.3"))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 08:06
L4	324	L3 and ((atomic adj layer adj deposition) or ALD)	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 07:28
L5	19	L4 and (@py<"2002")	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 07:29
L6	6	("5015503"   "5320680"   "5879459"   "5916365"   "6007330"   "6050216").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/15 07:39
L7	0	(TMA trimethylaluminum (trimethyl adj aluminum) trimethyl-aluminum tri-methylaluminum) same (ozone "o.sub.3") same (alumina (aluminum adj oxide) "al.sub.2o.sub.3") same (ALD (atomic adj layer adj deposition) (sequential adj chemical adj vapor adj deposition))	USOCR; EPO; JPO	OR	ON	2006/08/15 07:46
L8	3	(TMA trimethylaluminum (trimethyl adj aluminum) trimethyl-aluminum tri-methylaluminum) and (ozone "o.sub.3") and (alumina (aluminum adj oxide) "al.sub.2o.sub.3")	USOCR; EPO; JPO	OR	ON	2006/08/15 07:48
L9	43	(TMA trimethylaluminum (trimethyl adj aluminum) trimethyl-aluminum tri-methylaluminum) and (ozone "o.sub.3")	USOCR; EPO; JPO	OR	ON	2006/08/15 07:49
L10	630	(TMA trimethylaluminum (trimethyl adj aluminum) trimethyl-aluminum tri-methylaluminum) same (ozone "o.sub.3")	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 07:49

## EAST Search History

L11	92	L10 same ((flow adj rate) sccm torr)	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 07:50
L13	21	L11 and (@py<"2002")	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 07:51
L14	1	"4585673".PN.	USPAT; USOCR	OR	ON	2006/08/15 07:53
L15	223	((aluminum adj oxide) or ("al.sub.2O.sub.3") or ("al.sub.2.O.sub.3")) with (film or coating) with (ALD or (atomic layer deposition) or (sequential chemical vapor deposition))	US-PGPUB; USPAT; DERWENT; IBM_TDB	ADJ	ON	2006/08/15 08:07
L16	7	L15 and (@py<"2002")	US-PGPUB; USPAT; DERWENT; IBM_TDB	ADJ	ON	2006/08/15 08:08
L18	15	("4058430"   "4389973"   "4767494"   "4845049"   "4859627"   "4876218"   "4993357"   "5060595"   "5071670"   "5130269"   "5166092"   "5225366"   "5256244"   "5270247"   "5693139").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/15 08:31
L19	2	(metal oxide film) with (ALD or (atomic layer deposition)) and @py<"2002"	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/08/15 08:32
L20	3	(metal oxide film) same (ALD or (atomic layer deposition)) and @py<"2002"	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/08/15 08:33
S1	2472	(427/248.1).CCLS.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	OFF	2006/08/14 13:56
S2	1757	(427/250).CCLS.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	OFF	2006/08/14 13:56
S3	236	(427/255.23).CCLS.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	OFF	2006/08/14 13:56
S4	712	(427/255.28).CCLS.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	OFF	2006/08/14 13:57

## EAST Search History

S5	281	(427/255.32).CCLS.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	OFF	2006/08/14 13:56
S6	932	(427/255.7).CCLS.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	OFF	2006/08/14 13:56
S7	552	(427/421.1).CCLS.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	OFF	2006/08/14 13:58
S8	423	(427/426).CCLS.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	OFF	2006/08/14 13:58
S9	11	S3 and (TMA or trimethylaluminum or tri-methylaluminum or (tri adj methyl adj aluminum) or (tri adj methylaluminum))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:01
S10	7	S5 and (TMA or trimethylaluminum or tri-methylaluminum or (tri adj methyl adj aluminum) or (tri adj methylaluminum))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:03
S11	80	S1 and (TMA or trimethylaluminum or tri-methylaluminum or (tri adj methyl adj aluminum) or (tri adj methylaluminum))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:06
S12	34	S4 and (TMA or trimethylaluminum or tri-methylaluminum or (tri adj methyl adj aluminum) or (tri adj methylaluminum))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:09
S13	27	S2 and (TMA or trimethylaluminum or tri-methylaluminum or (tri adj methyl adj aluminum) or (tri adj methylaluminum))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:11
S14	26	S6 and (TMA or trimethylaluminum or tri-methylaluminum or (tri adj methyl adj aluminum) or (tri adj methylaluminum))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:12
S15	2	S7 and (TMA or trimethylaluminum or tri-methylaluminum or (tri adj methyl adj aluminum) or (tri adj methylaluminum))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:08
S16	0	S8 and (TMA or trimethylaluminum or tri-methylaluminum or (tri adj methyl adj aluminum) or (tri adj methylaluminum))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:00

## EAST Search History

S17	17770	(TMA or trimethylaluminum or tri-methylaluminum or (tri adj methyl adj aluminum) or (tri adj methylaluminum))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:00
S18	3294	S17 and (ozone "o.sub.3")	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:14
S19	25	S11 and (aluminum adj oxide) or ("al.sub.2.O.sub.3")	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:07
S20	975	S18 and ((aluminum adj oxide) or ("al.sub.2O.sub.3") or ("al.sub.2.O.sub.3"))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:15
S21	324	S20 and ((atomic adj layer adj deposition) or ALD)	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:15
S23	49	S21 and (@py<"2003")	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 07:28
S24	79	park-young-hoon.in.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:23
S25	2	ahn-cheol-hyun.in.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:20
S26	14	lim-hong-joo.in.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:22
S27	11	lee-sang-kyu.in.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:21
S28	7	bae-jang-ho.in.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:21
S29	0	("2004/0101622").URPN.	USPAT	OR	ON	2006/08/14 14:25

## EAST Search History

S31	74	(US-20030185980-\$ or US-20020001969-\$ or US-20030200924-\$ or US-20020106451-\$ or US-20030072975-\$ or US-20020086106-\$ or US-20030143319-\$ or US-20020172768-\$ or US-20010002280-\$ or US-20020197864-\$ or US-20020197856-\$ or US-20020196591-\$ or US-20020192954-\$ or US-20020195683-\$ or US-20020182820-\$ or US-20020162506-\$ or US-20020160585-\$ or US-20020127867-\$ or US-20020115275-\$ or US-20020115252-\$ or US-20020098627-\$ or US-20020081394-\$ or US-20020076837-\$ or US-20020048635-\$ or US-20020003403-\$ or US-20020001971-\$).did. or (US-20020001906-\$ or US-20010052752-\$ or US-20010051444-\$ or US-20010041250-\$ or US-20010029092-\$ or US-20010025979-\$ or US-20010024860-\$ or US-20010024387-\$ or US-20010006835-\$ or US-20010000866-\$ or US-20020094689-\$ or US-20020052097-\$ or US-20020007790-\$ or US-20020000196-\$).did. or (US-6764546-\$ or US-5866198-\$ or US-5547708-\$ or US-6409830-\$ or US-6872421-\$ or US-6921555-\$ or US-5902638-\$ or US-5679412-\$ or US-5766682-\$ or US-6399772-\$ or US-6004885-\$ or US-5151305-\$ or US-6489214-\$ or US-6483162-\$ or US-6475910-\$ or US-6458416-\$ or US-6451695-\$ or US-6451119-\$ or US-6426307-\$ or US-6403156-\$ or US-6342277-\$ or US-6333260-\$ or US-6305314-\$ or US-6287965-\$ or US-6270572-\$ or US-6203613-\$). did. or (US-6200893-\$ or US-5883205-\$ or US-5840815-\$ or US-5338526-\$ or US-6884297-\$ or US-6852168-\$ or US-6573184-\$ or US-6448113-\$).did.	US-PGPUB; USPAT	OR	ON	2006/08/14 14:30
8/15/2006 8:46:56 AM		C:\Documents and Settings\Kstouffer\My Documents\EAST\Workspaces\10716950.wsp				Page 5

## EAST Search History

S32	50	S31 and ((aluminum adj oxide) ("al. sub.2osub.3"))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:30
S33	27	S32 and (ozone or ("o.sub3"))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:32
S34	27	S33 and (ALD (atomic adj layer adj deposition))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 14:37
S35	20	(US-20020106451-\$ or US-20020086106-\$ or US-20030143319-\$ or US-20020196591-\$ or US-20020160585-\$ or US-20020127867-\$ or US-20020115252-\$ or US-20020081394-\$ or US-20020076837-\$ or US-20020003403-\$ or US-20010052752-\$ or US-20010041250-\$ or US-20010025979-\$ or US-20010024387-\$ or US-20010006835-\$).did. or (US-6004885-\$ or US-6203613-\$ or US-6884297-\$ or US-6852168-\$ or US-6573184-\$).did.	US-PGPUB; USPAT	OR	ON	2006/08/14 15:18
S37	3	S35 and spray\$3	US-PGPUB; USPAT	OR	ON	2006/08/14 15:18
S38	12	("5250323"   "5849092"   "6200893"   "6342445").PN. OR ("6573184").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/14 15:19
S39	13	S35 and (purge pulse)	US-PGPUB; USPAT	OR	ON	2006/08/14 15:22
S40	8	S35 and (flow adj rate)	US-PGPUB; USPAT	OR	ON	2006/08/14 15:23
S41	7	S39 and (flow adj rate)	US-PGPUB; USPAT	OR	ON	2006/08/14 15:23
S42	25	("2002/0086106").URPN.	USPAT	OR	ON	2006/08/14 15:46
S43	4	((("4,861,417") or ("6,015,590")). PN.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	OFF	2006/08/14 16:06

## EAST Search History

S44	2	("4058430").PN.	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	OFF	2006/08/14 16:11
S45	114	(TMA trimethylaluminum (trimethyl adj aluminum) trimethyl-aluminum tri-methylaluminum) same (ozone "o.sub.3") same (alumina (aluminum adj oxide) "al.sub.2o.sub.3") same (ALD (atomic adj layer adj deposition) (sequential adj chemical adj vapor adj deposition))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 07:46
S46	7	S45 and (@py<"2003")	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 16:45
S48	2448	(shower adj head) same (gas; vapor)	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 16:47
S49	430	S48 and (alumina (aluminum adj oxide))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 16:48
S50	48	S49 and (TMA trimethylaluminum (trimethyl adj aluminum)) and ozone	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 16:49
S51	43	S50 and (@py<"2003")	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 17:01
S52	1	S51 and (ald (atomic adj layer adj deposition) (sequential adj chemical adj vapor adj deposition))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 16:55
S53	42	S51 and sccm	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 17:08
S54	68	(shower adj head) same (ALD (atomic adj layer adj deposition))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 17:09
S55	9	S54 and (@py<"2003")	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 17:14

## EAST Search History

S56	6	S55 and sccm	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 17:17
S57	1	trimethylaluminum same ozone same sccm	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 17:18
S58	47	trimethylaluminum same sccm and ozone	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 17:18
S59	886	(alumina (aluminum adj oxide)) same (ALD (atomic adj layer adj deposition) (sequential adj chemical adj vapor adj deposition))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 17:19
S60	254	S59 and ozone	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 17:20
S61	130	S60 and (TMA trimethylaluminum (tri adj methylaluminum))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 17:20
S62	43	S61 and sccm	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/14 17:20
S63	86	("20020006468"   "20020102838"   "4058430"   "4486487"   "4747367"   "4761269"   "5071670"   "5294286"   "5306666"   "5449314"   "5769950"   "5795495"   "5916365"   "6174799"   "6174809"   "6294836"   "6329704"   "6362526"   "6365502"   "6368954"   "6368961"   "6399522").PN. OR ("6534395").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/14 17:23



## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L10	525	((shower adj head) showerhead ((distribution dispersion) near2 (plate head))) same (carrier inert) same (reactant precursor)	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 12:40
L11	114	L10 and ((atomic adj layer adj deposition) ald pcvd (sequential adj chemical adj vapor adj deposition))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 12:06
L14	15	("4058430"   "5082798"   "5374570"   "5693139"   "5693579"   "6090442"   "6124158").PN. OR ("6576053").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/15 11:36
L16	2	L10 same ((continuous constant) with supply)	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 12:03
L17	69	((shower adj head) showerhead ((distribution dispersion) near2 (plate head))) same (carrier and inert) same (reactant precursor)	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 12:06
L18	17	L17 and ((atomic adj layer adj deposition) ald pcvd (sequential adj chemical adj vapor adj deposition))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 12:07
L19	40	((shower adj head) showerhead ((distribution dispersion) near2 (plate head))) same ((separate isolated) with (region hole))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 12:41
L20	1	L19 same (inert carrier)	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 12:41

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	((atomic adj layer adj deposition) ald pcvd (sequential adj chemical adj vapor adj deposition)) same ((constant continuous) with supply with (inert carrier))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 15:50
L2	0	("2005/0249876").URPN.	USPAT	OR	ON	2006/08/15 15:47
L3	0	((atomic adj layer adj deposition) ald pcvd (sequential adj chemical adj vapor adj deposition)) same ((inert carrier) with seperate with (nozzle region line))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 15:50
L4	0	((atomic adj layer adj deposition) ald pcvd (sequential adj chemical adj vapor adj deposition)) and ((inert carrier) with seperate with (nozzle region line))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 15:50
L5	7	((atomic adj layer adj deposition) ald pcvd (sequential adj chemical adj vapor adj deposition)) and ((constant continuous) with supply with (inert carrier))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 15:50
L6	3	((shower adj head) showerhead ((distribution dispersion) near2 (plate head))) same ((constant continuous) with supply with (inert carrier))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 16:02
L7	13	((shower adj head) showerhead ((distribution dispersion) near2 (plate head))) and ((constant continuous) with supply with (inert carrier))	US-PGPUB; USPAT; DERWENT; IBM_TDB	OR	ON	2006/08/15 16:02